# RECEIVED CENTRAL FAX CENTER

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Appellants:

Michael J. Faulks et al.

Docket No.:

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Serial No.:

10/719,639

Group:

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Confirmation No:

3447

Examiner:

Melanie Jo Hand

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November 9, 2007

**For:** 

REDUCED NOISE COMPOSITE MATERIALS AND DISPOSABLE PERSONAL

CARE DEVICES EMPLOYING SAME

# Amended Brief on Appeal to the Board of Patent Appeals and Interferences

Mail Stop Appeal Brief - Patents Commissioner For Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. 41.37 Appellants respectfully submit this Amended Brief in support of their Appeal of Examiner Hand's **Final Rejection** of claims 10-18, 21-30, 32-36 which was mailed on October 12, 2007.

#### Real Party in Interest

The real party in interest is Kimberly-Clark Worldwide, Inc., the assignee of record.

#### Related Appeals and Interferences

There are no related appeals and/or interferences with regard to the present application

#### Status of Claims

Claims 10-18, 21-30, 32-36 remain in the application with claims 10-18, 21-30, 32-36 being finally rejected. Claims 1-9 have been withdrawn; and claims 19, 20 and 31 have been canceled. The appealed claims include 10-18, 21-30, 32-36 and appear in the CLAIMS APPENDIX of this Brief.

#### Status of Amendments

No amendment to the claims was filed after the most recent final rejection.

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#### Summary of Claimed Subject Matter

The present application is directed to a reduced-noise backsheet which substantially completely coats said target region.

The invention of independent Claim 10 defines the article as having a substrate layer, which has a first surface that includes having a surface area and a target region; and a second layer, which is a noise-reducing layer that completely substantially coats said target region having a basis weight of at least about three grams per square meter. (See, e.g., specification at page 3, lines 17-23).

The invention of independent Claim 21 is directed to a disposable absorbent article that is comprised of a body-side liner, a garment-side outer cover, with the outer cover comprising a liquid-impermeable substrate layer comprised of a thermoplastic, polymeric material (see, e.g., page 6, lines 5-6). The substrate layer defines a first surface having a surface area and a target area. (See, e.g., specification at page 3, lines 24-31; and page 4, lines 1-3.) The outer cover also comprises a noise-reducing layer which substantially completely coats said target region, with the noise-reducing layer having a basis weight of at least about three grams per square meter. (Id.) The article also comprises an absorbent assembly disposed between said body-side liner and said garment-side outer cover. (Id.).

The invention of independent Claim 21 is directed to a disposable absorbent article that is comprised of a body-side liner, a garment-side outer cover, with the outer cover comprising a liquid-impermeable substrate layer comprised of a thermoplastic, polymeric material (see, e.g., page 6, lines 5-6). The substrate layer defines a first surface having a surface area and a target area. (See, e.g., specification at page 3, lines 24-31; and page 4, lines 1-3.) The outer cover also comprises a noise-reducing layer which substantially completely coats said target region. (Id.) The article also comprises an absorbent assembly disposed between said body-side liner and said garment-side outer cover. (Id.). Furthermore, the article has a Noise Level of less than 30.0 dB at 2kHz and less than 28.0 dB at 4 kHz. (See specification at page 4, lines 4-11).

The invention of independent Claim 32 is directed to a disposable absorbent article comprised of a body-side liner, a garment-side outer cover, with the outer cover comprising a liquid-impermeable substrate layer comprised of a thermoplastic, polymeric material (see, e.g., page 6, lines 5-6). The substrate layer defines a first surface having a surface area; a noise-reducing layer which substantially completely coats a target region (see, page 3, lines 20-21). The disposable absorbent article further includes an assorbent assembly disposed between said body-side liner and said garment-side outer cover (see, page 4, lines 1-3). The disposable absorbent article has a Noise Level of less than 30.0 dB at 2 kHz and less than 28.0 dB at 4 kHz (see, page 4, lines 10-11).

#### Grounds of Rejection To Be Reviewed on Appeal

There are four grounds of rejection presented for review:

- 1) Claims 10-18 stand rejected under 35 U.S.C. 102 (b) as being anticipated by Miller et al. (EP Patent No. 661,960 B1).
- 2) Claim 11 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (EP Patent No. 661,960 B1).
- 3) Claim 17 stands rejected under 35 U.S.C. 103(a) as being unpatenatable over Miller et al. (EP Patent No. 661,960 B1) in view of Hwang et al. (U.S. Patent No. 4,902,553).
- 4) Claims 21-30 and 32-36 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang et al. (U.S. Patent No. 4,902,553) in view of Miller et al. (EP Patent No. 661,960 B1).

## Argument

#### 1. Claims 10-18 Are Not Anticipated by Miller under 35 U.S.C. § 102

Miller discloses "a disposable diaper closure system in which the fastening tape makes little noise when detached from the diaper." (Page 2, lines 3-4.) Thus, the Miller invention is directed to a closure system where the <u>noise caused by separating the fastening tape from the frontal tape portion of the diaper is suppressed</u>. (Page 2, lines 32-33.) The noise reduction is achieved by "a *combination* of a release agent to be coated in the surface of the frontal tape *and* a specific adhesive for the fastening tape." (Italics added, see, page 2, lines 35-36.) The basis weight of the release agent layer is 0.1 to 1.0 g/m². (Page 4, line 2.)

In stark contrast, the present invention is a layered backsheet or outer cover material as shown in at least FIG. 1 of the present application. The backsheet material is used to reduce the "rattling" or "rustling" sounds associated with polymeric materials; the backsheet in no way affects the amount of noise resulting from the separation of tape fasteners. (Page 2, lines 1-10, and 26-28.) In the present invention, the reduced-noise composite material 100 includes a substrate 101 and a noise reducing coating material 102. The substrate can be made of any material suitable for use in a disposable personal care device, including a polymeric substance. However, there is only "a" layer that works to

reduce noise. This layer does not work in conjunction with another component (other than the

substrate) to reduce noise as does the Miller invention.

Thus, not every element of the claimed invention is disclosed in the Miller reference. Miller does not disclose "a noise-reducing layer" because it is really the <u>interaction between two materials</u> that causes the noise reduction when the fastening tapes are separated. The clted reference makes no mention that either layer is capable of reducing the rattling noise of a backsheet. Further, the Miller invention discloses a release agent layer having a basis weight of 0.1 to 1.0 g/m². This release agent layer, though not indicated as being solely responsible for noise reduction, is less than the required basis weight of at least about three g/m² for independent claim 10 (and the corresponding dependent claims). Though the adhesive layer has a basis weight of 50 g/m², the adhesive, like the release layer, is not by itself "a noise-reducing layer." Finally, Miller discloses only a noise-reduced tape fastening system, not a backsheet. Thus, for at least these reasons, Miller does not anticipate independent claim 10 of the present invention. Likewise, for the same reasons, Miller does not anticipate claims 11-18 which depend from independent claim 10. As such, appellants respectfully request that the rejection of claims 10-18 under 35 U.S.C. § 102 be reversed.

# 2. Claim 11 is Not Rendered Obvious By Miller under 35 U.S.C. § 103

It would not have been obvious to one of ordinary skill, reading Miller, to modify the positioning of the tape such that 75% of the surface area of the first surface of tape substrate 6 is occupied by the target region.

Also, the claimed invention solves a different problem from that solved by Miller. Miller solves the problem of making the act of fastener separation quieter, whereas the present invention solves the problem of reducing the rustling noise of a disposable absorbent product as it is being worn. For at least this reason, the present invention as claimed is not obvious under Miller. Thus, whether or not the tape fastening system in Miller has a certain amount of surface area occupied by a target region is of little consequence. Miller does not show or suggest a backsheet wherein the target region is at least about 75% of said surface area of the first surface. Accordingly, Appellants respectfully request that this obviousness rejection be reversed.

#### 3. Claim 17 is Not Rendered Obvious by Miller In view of Hwang under 35 U.S.C. § 103

It is not obvious to one of ordinary skill in the art to adhere the non-woven rattle-free layer taught by Hwang to the substrate taught by Miller. There is no motivation to combine Miller and Hwang. First,

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Miller is directed to reducing noise caused when operating a fastener tape. Miller does not address the problem of rattling or rustling of a backsheet material as does the present invention and the Hwang invention. The substrate in Miller is a tape—not a backsheet. There is no reason to place the noise-reducing layer of Hwang onto the tape substrate of Miller. If this were done, the tape would no longer operate as a fastener. Thus, even if motivation to combine the references existed, the combination would not yield a backsheet having reduced noise. Accordingly, Appellants respectfully request that this obviousness rejection be reversed.

# 4. Claims 21-30 and 32-36 Are Not Rendered Obvious Over Hwang In View of Miller under 35 U.S.C. § 103\*

# (\*The Examiner Identifies claim 31 as being rejected, but claim 31 was canceled.)

It is not obvious to one skilled in the art to substitute the rattle-free film taught by Hwang for the noise-reducing adhesive taught by Miller. The Examiner stated that Hwang teaches an absorbent article comprising a bodyside liner, a garment-side outer cover, and an absorbent assembly disposed between the bodyside liner. The outer cover is comprised of a figuid-impermeable substrate layer, which is comprised of a thermoplastic polymeric material defining a first surface having a surface area and a target area defined by a portion of the substrate layer covered by a piece of rattle-free film (noise-reducing layer). Hwang does not teach that the noise-reducing layer coats the target region, nor does Hwang teach a basis weight for the noise-reducing layer. Miller teaches a low noise fastening tape 5 for a diaper, comprising a tape substrate layer 6 defining a first surface having a surface area and a target area, and a noise reducing layer that coats the target region. The noise-reducing layer has a basis weight of 50 g/m². Because the substrate material taught by Miller is substantially identical to the outer cover material taught by Hwang, and because Miller teaches that the noise-reducing substance 7 is also an adhesive, it would be obvious to one or ordinary skill in the art to substitute the rattle-free film taught by Hwang for the noise- reducing adhesive taught by Miller. Appellants respectfully disagree with this statement.

As with the previous rejection, there is no motivation to combine these two references as the combination of an adhesive and an outercover simply yields a sticky outercover, not the rattle-reduced outercover of the present invention. The Miller adhesive works in conjunction with the release layer to create a low-noise fastener (low noise during separation). Even if the adhesive were solely responsible for noise reduction, at the very least, it would be improper hindsight reconstruction to combine the outercover of Hwang with the fastener adhesive of Miller. Accordingly, Appellants request that this obviousness rejection of claim 21, and the corresponding dependent claims (claims 22-30, and claims 32-36) be reversed.

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### Conclusion

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For the reasons stated above it is Appellants' position that the Examiner's rejection of claims has been shown to be untenable and should be **reversed** by the Board.

Please charge the \$500.00 fee (fee code 1402), pursuant to 37 C.F.R. 41.20(b)(2), for filing this Appeal Brief to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875. Any additional prosecutional fees which are due may also be charged to deposit account number 11-0875.

The undersigned may be reached at: 920-721-2747

Respectfully submitted,

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Sebastian C. Pugliese III

Registration No.: 42,091

#### **CERTIFICATE OF TRANSMISSION**

I, Tammi M. Langin, hereby certify that on November 9, 2007 this document is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (571) 273-8300.

Typed or printed name of person signing this certificate:

Tammi M. Langin

Signature:

#### Claims Appendix

The claims on appeal are:

10. A reduced-noise backsheet comprising:

a substrate layer which defines a first surface having a surface area and a target region; and a noise-reducing layer which substantially completely coats said target region, said noise-reducing layer having a basis weight of at least about three grams per square meter.

- 11. The reduced-noise backsheet\_of Claim 10 wherein said target region is at least about 75% of said surface area of said first surface.
- 12. The reduced-noise backsheet of Claim 10 wherein said basis weight is at least about four grams per square meter.
- 13. The reduced-noise backsheet of Claim 10 wherein said noise-reducing layer consists essentially of at least one of polyisoprene, polybutadiene, polyisobutylene, polyurethanes, silicone rubber, atactic polypropylene, and a synthetic block co-polymer.
- 14. The reduced-noise backsheet of Claim 10 wherein said noise-reducing layer consists essentially of at least one of styrene block co-polymers and olefin-based adhesives.
- 15. The reduced-noise backsheet of Claim 10 wherein said substrate layer comprises a thermoplastic, polymeric film.
- 16. The reduced-noise backsheet of Claim 15 wherein said substrate layer is non-elastomeric.

- 17. The reduced-noise backsheet of Claim 15 further comprising a nonwoven layer adhered to said substrate layer.
- 18. The reduced-noise backsheet\_of Claim 15 wherein said substrate layer comprises at least one of polyethylene and polypropylene.
- 21. A disposable absorbent article comprising:
  - a body-side liner;
  - a garment-side outer cover, said outer cover comprising:
  - a liquid-impermeable substrate layer comprised of a thermoplastic, polymeric material and which defines a first surface having a surface area and a target area; and
  - a noise-reducing layer which substantially completely coats said target region, said noisereducing layer having a basis weight of at least about three grams per square meter; and
    an absorbent assembly disposed between said body-side liner and said garment-side outer
    cover.
- 22 The disposable absorbent article of claim 21 wherein said target region has an area which is at least about 50% of said surface area of said first surface.
- 23 The disposable absorbent article of claim 21 wherein said target region has an area which is at least about 75% of said surface area of said first surface.
- 24 The disposable absorbent article of claim 21 wherein said basis weight is at least about four grams per square meter.
- 25 The disposable absorbent article of claim 21 wherein said noise-reducing layer consists essentially of PAGE 8/12\* RCVD AT 11/9/2007 5:20:49 PM [Eastern Standard Time] \* SVR:USPTO-EFXRF-5/21\* DNIS:2738300 \* CSID:920 721 0225 \* DURATION (mm-ss):01-46

- at least one of polyisoprene, polybutadiene, polyisobutylene, polyurethanes, silicone rubber, atactic polypropylene, and a synthetic block co-polymer.
- 26 The disposable absorbent article of claim 21 wherein said noise-reducing layer consists essentially of at least one of styrene block co-polymers and olefin-based adhesives.
- 27 The disposable absorbent article of claim 21 wherein said substrate layer comprises a thermoplastic, polymeric film.
- 28 The disposable absorbent article of claim 27 wherein said substrate layer is non-elastomeric.
- 29 The disposable absorbent article of claim 27 further comprising a nonwoven layer.
- 30 The disposable absorbent article of claim 27 wherein said substrate layer comprises at least one of polyethylene and polypropylene.
- 32. A disposable absorbent article comprising:
  - a body-side liner;
- a garment-side outer cover, said outer cover comprising a liquid-impermeable substrate layer comprised of a thermoplastic, polymeric material and which defines a first surface having a surface area; a noise-reducing layer which substantially completely coats a target region of said first surface; and an absorbent assembly disposed between said body-side liner and said garment-side outer cover, wherein the article has a Noise Level of less than 30.0 dB at 2 kHz and less than 28.0 dB at 4 kHz.
- 33. The disposable absorbent article of claim 32, wherein the target region has an area which is at least about 50% of said surface area;
- said noise-reducing layer having a basis weight of at least about three grams per square meter.

- 34. The disposable absorbent article of claim 33 wherein said noise-reducing layer consists essentially of at least one of polyisoprene, polybutadiene, polyisobutylene, polyurethanes, silicone rubber, atactic polypropylene, and a synthetic block co-polymer.
- 35. The disposable absorbent article of claim 32 wherein said substrate layer comprises a nonelastomeric thermoplastic, polymeric material.
- 36. The disposable absorbent article of claim 35 further comprising a nonwovenlayer adhered to said substrate layer.

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Evidence Appendix			
None.	!		

Related Proceedings Appen	dix		
None.	•		